

In the Claims

Please cancel claims 1-9 and 13 without prejudice to or disclaimer of the subject matter therein.

Please add the following new claims:

-- 1 ~~16~~. An isolated polynucleotide comprising a nucleic acid encoding amino acids 2 to 127 of SEQ ID NO:2.

2 ~~17~~. The isolated polynucleotide of claim ~~16~~¹, comprising nucleotides 15 to 392 of SEQ ID NO:1.

3 ~~18~~. The isolated polynucleotide of claim ~~16~~¹, comprising a nucleic acid encoding amino acids 1 to 127 of SEQ ID NO:2.

A1 4 ~~19~~. The isolated polynucleotide of claim ~~18~~³, comprising nucleotides 12 to 392 of SEQ ID NO:1.

5 ~~20~~. The isolated polynucleotide of claim ~~16~~¹, which is DNA.

6 ~~21~~. The isolated polynucleotide of claim ~~16~~¹, which is RNA.

7 ~~22~~. The isolated polynucleotide of claim ~~16~~¹, further comprising a heterologous polynucleotide.

⁷
~~8~~/~~23~~. The isolated polynucleotide of claim ~~22~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

¹
~~9~~/~~24~~. A method of producing a vector that comprises inserting the isolated polynucleotide of claim ~~16~~ into a vector.

¹
~~10~~/~~25~~. A vector comprising the isolated polynucleotide of claim ~~16~~.

¹⁰
~~11~~/~~26~~. The vector of claim ~~25~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

¹
~~12~~/~~27~~. A host cell comprising the isolated polynucleotide of claim ~~16~~.

¹²
~~13~~/~~28~~. The host cell of claim ~~27~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

¹³
~~14~~/~~29~~. A method of producing a polypeptide that comprises culturing the host cell of claim ~~28~~ under conditions such that said polypeptide is expressed, and recovering said polypeptide.

¹
~~15~~/~~30~~. A composition comprising the isolated polynucleotide of claim ~~16~~ and a pharmaceutically acceptable carrier.

¹
~~16~~/~~31~~. An isolated polynucleotide comprising a nucleic acid encoding the complete amino acid sequence encoded by the cDNA clone of ATCC Deposit No. 97856.

- 17¹⁶/~~32~~. The isolated polynucleotide of claim ~~31~~¹⁶, which is DNA.
- 18¹⁶/~~33~~. The isolated polynucleotide of claim ~~31~~¹⁶, which is RNA.
- 19¹⁶/~~34~~. The isolated polynucleotide of claim ~~31~~¹⁶, further comprising a heterologous polynucleotide.
- 20¹⁹/~~35~~. The isolated polynucleotide of claim ~~34~~¹⁹, wherein said heterologous polynucleotide encodes a heterologous polypeptide.
- 21¹⁶/~~36~~. A method of producing a vector that comprises inserting the isolated polynucleotide of claim ~~31~~¹⁶ into a vector.
- 22¹⁶/~~37~~. A vector comprising the isolated polynucleotide of claim ~~31~~¹⁶.
- 23²²/~~38~~. The vector of claim ~~37~~²², wherein said polynucleotide is operably associated with a heterologous regulatory sequence.
- 24¹⁶/~~39~~. A host cell comprising the isolated polynucleotide of claim ~~31~~¹⁶.
- 25²⁴/~~40~~. The host cell of claim ~~39~~²⁴, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

²⁶/~~41~~. A method of producing a polypeptide that comprises culturing the host cell of claim ~~40~~²⁵ under conditions such that said polypeptide is expressed, and recovering said polypeptide.

²¹/~~42~~. A composition comprising the isolated polynucleotide of claim ~~31~~¹⁶ and a pharmaceutically acceptable carrier.

~~43. An isolated polynucleotide comprising 50 contiguous nucleotides of the coding region of SEQ ID NO:1 or the complement thereof.~~

~~44. The isolated polynucleotide of claim 43, comprising 100 contiguous nucleotides of the coding region of SEQ ID NO:1 or the complement thereof.~~

~~45. The isolated polynucleotide of claim 44, comprising 250 contiguous nucleotides of the coding region of SEQ ID NO:1 or the complement thereof.~~

~~46. The isolated polynucleotide of claim 43, which is DNA.~~

~~47. The isolated polynucleotide of claim 43, which is RNA.~~

~~48. The isolated polynucleotide of claim 43, further comprising a heterologous polynucleotide.~~

~~49. The isolated polynucleotide of claim 48, wherein said heterologous polynucleotide encodes a heterologous polypeptide.~~

50. A method of producing a vector that comprises inserting the isolated polynucleotide of claim 43 into a vector.

51. A vector comprising the isolated polynucleotide of claim 43.

52. The vector of claim 51, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

53. A host cell comprising the isolated polynucleotide of claim 43.

54. The host cell of claim 53, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

55. A method of producing a polypeptide that comprises culturing the host cell of claim 54 under conditions such that said polypeptide is expressed, and recovering said polypeptide.

56. A composition comprising the isolated polynucleotide of claim 43 and a pharmaceutically acceptable carrier.

57. An isolated polynucleotide, comprising a nucleic acid which encodes an amino acid sequence selected from the group consisting of:

- (a) amino acids 94 to 107 of SEQ ID NO:2; and
- (b) amino acids 120 to 127 of SEQ ID NO:2.

58. The isolated polynucleotide of claim 57, wherein said amino acid sequence is (a).

59. The isolated polynucleotide of claim 57, wherein said amino acid sequence is (b).

³⁹
~~60~~. The isolated polynucleotide of claim ³⁶~~57~~, which is DNA.

⁴⁰
~~61~~. The isolated polynucleotide of claim ³⁶~~57~~, which is RNA.

⁴¹
~~62~~. The isolated polynucleotide of claim ³⁶~~57~~, further comprising a heterologous polynucleotide.

⁴²
~~63~~. The isolated polynucleotide of claim ⁴¹~~62~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

⁴³
~~64~~. A method of producing a vector that comprises inserting the isolated polynucleotide of claim ³⁶~~57~~ into a vector.

⁴⁴
~~65~~. A vector comprising the isolated polynucleotide of claim ³⁶~~57~~.

⁴⁵
~~66~~. The vector of claim ⁴⁴~~65~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

⁴⁶
~~67~~. A host cell comprising the isolated polynucleotide of claim ³⁶~~57~~.

⁴⁷/~~68~~. The host cell of claim ⁴⁶/~~67~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

⁴⁸/~~69~~. A method of producing a polypeptide that comprises culturing the host cell of claim ⁴⁷/~~68~~ under conditions such that said polypeptide is expressed, and recovering said polypeptide.

⁴⁹/~~70~~. A composition comprising the isolated polynucleotide of claim ³⁶/~~57~~ and a pharmaceutically acceptable carrier.

Sub
Q1

⁷¹. An isolated polynucleotide molecule comprising a first nucleic acid 95% or more identical to a reference nucleic acid encoding an amino acid sequence selected from the group consisting of:

- (a) amino acids 1 to 127 of SEQ ID NO:2;
- (b) amino acids 2 to 127 of SEQ ID NO:2; and
- (c) the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97856;

wherein percent identity is calculated using BESTFIT with the parameters set such that percentage of identity is calculated over the full length of the reference nucleic acid and that gaps in homology of up to 5% of the total number of nucleotides in the reference nucleic acid are allowed.

72. An isolated polynucleotide comprising a nucleic acid encoding an amino acid sequence, wherein, except for one to thirty conservative amino acid substitutions, said amino acid sequence is selected from the group consisting of:

- 26
F7
- (a) amino acids 1 to 127 of SEQ ID NO:2;
 - (b) amino acids 2 to 127 of SEQ ID NO:2; and
 - (c) the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97856.

52
73. The isolated polynucleotide of claim ⁵¹72, wherein the number of substitutions is not more than 10.

53
74. The isolated polynucleotide of claim ⁵²73, wherein the number of substitutions is not more than 5.

54
75. The isolated polynucleotide of claim ⁵³74, wherein the number of substitutions is not more than 3.

76. An isolated polynucleotide comprising a nucleic acid encoding an amino acid sequence 95% or more identical to a reference amino acid sequence selected from the group consisting of:

- 26
F8
- (a) amino acids 1 to 127 of SEQ ID NO:2;
 - (b) amino acids 2 to 127 of SEQ ID NO:2; and
 - (c) the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97856;

wherein percent identity is calculated using BESTFIT with the parameters set such that percentage of identity is calculated over the full length of the reference amino acid sequence and that gaps in homology of up to 5% of the total number of amino acids in the reference nucleic acid are allowed.

77. An isolated polynucleotide comprising a nucleic acid which is 95% or more identical to a reference nucleic acid, wherein said reference nucleic acid is selected from the group consisting of:

- (a) nucleotides 15 to 392 of SEQ ID NO:1; and
- (b) nucleotides 12 to 392 of SEQ ID NO:1;

wherein percent identity is calculated using BESTFIT with the parameters set such that percentage of identity is calculated over the full length of the reference nucleic acid and that gaps in homology of up to 5% of the total number of nucleotides in the reference nucleic acid are allowed.

78. An isolated polynucleotide comprising a first nucleic acid which hybridizes (i) at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate, 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; (ii) followed by washing in a solution consisting of 0.1x SSC at 65°C; to a second nucleic acid having the nucleotide sequence of the coding region of SEQ ID NO:1 or the complement thereof; wherein said first nucleic acid is 50 or more nucleotides long.

79. An isolated polynucleotide comprising 30 contiguous nucleotides of SEQ ID NO:12.--